THE ACMA NEWSLETTER Sep2013

IN THIS ISSUE:

PRESIDENT'S ADDRESS

Dear members,

Another auspicious occasion has passed with the mid Autumn Festival. This brings us once did closer to Christmas. All of these occasions to do with being with family and friends.

Many exciting developments are occuring with the ACMA and will become clearer in due course. I would like to take this time to welcome the new members to the Association and also welcome all the nominations for the committee which will ratify for next year at the AGM. I'm very happy to see there will be new faces nominating to the committee. I'm confident that with new ideas and renewed energy we shall propel ACMA to a new level for 2014. The AGM is coming up in November 17 and I wish to see you all there.

Membership has swelled in recent months due to hard work from various members who have been putting the word out and I would like to encourage other members to do the same to improve our membership numbers further so that will benefit us in terms of sponsorship for the future as well is all membership benefits which we may be able to negotiate on your behalf. See you all at the AGM and best wishes for the rest of 2013.

Dr Adrian Wan, President & CME Co-ordinator

Hey everyone, welcome to another issue of the ACMA newsletter. If you have any news, pictures, ideas and advertisements you would like to see in future newsletters, please email us at **editors@acma.org.nz.** The newsletter currently reaches 277 ACMA and YACMA members! We hope you enjoy this issue.

Jai Min, John & Varun

2013 ACMA TEAM

ACMA President
Dr Adrian Wan

Past President
Dr Weng-Key Chan

Secretary
Dr Richard Yu

Treasurer
Dr Benson Chen

Membership Secretary
Maryanne Ting

CME Coordinator
Dr Adrian Wan

General Committee
Dr Weng-Key Chan
Dr Carlos Lam
Dr Wilson Young
Mr Alex Ng
Dr Stanley Loo
Dr Derek Luo
Late Dr Annie Low

YACMA President
Debra Yeh

Student Clinical Reps
6th Year - Michael Plunkett
5th Year - Johnny Wu
4th Year – Christopher Wong

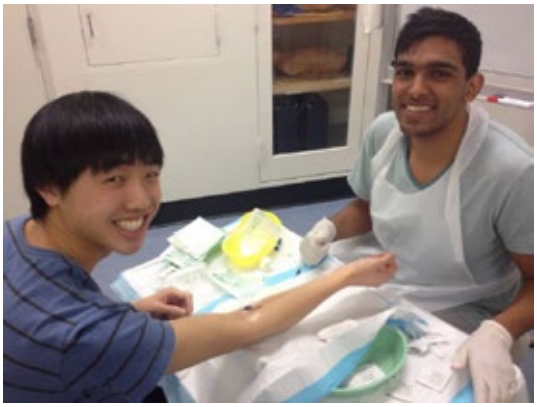
Student Preclinical Reps
Gabrielle Nathania Jee
Peter Ting
Kevin Liu

Newsletter Editors
Jai Min Choi
John Mak
Varun Thirayan

YACMA NEWS

Laser tag

YACMA Laser Tag took place on the 1st of September at North Shore's Mega Zone. 35 members attended the four hour marathon including a number of clinical students. Overall, the event was well received and a definite favorite amongst YACMA members.



Clinical Workshop

On the morning of 13th of October, YACMA held its Clinical Skills workshop which provided students the opportunity to practise IV cannulation, plastering and suturing. 3rd year students also receieved valuable OSCE practise from senior students. Despite the early morning start, 40 students turned up.

Careers evenings

The annual careers evening was held at Grafton on 17th of September. Eight doctors from various specialties requested by member polls were able to speak to us about things like a typical day, pros, cons and the training schemes of their specialty. Pizza was provided and almost 50 students attended, showing eager participation by asking many questions.

Special Thanks to:

All doctors and senior students involved in helping out at the clinical workshops (Alwin Lim, Vanessa Ng, Wes Xia, James Lim, Peter Xiang and Albert Wu) and speaking at the careers evening; as well as ACMA for their generous funding.

KEY REMINDERS

Membership

We would like to invite existing members to renew their membership through the membership forms available from the ACMA website or through the Membership secretary. Membership fees can be paid to the Treasurer Dr Benson Chen via cheque. Contact info@acma.org.nz for more informaiton.

Looking for new members

Please introduce the Association to your colleagues.

Upcoming AGM

Sunday 17th November

Doctor's List

Please email info@acma.org.nz to update your contact details if you would like to be added to the Chinese speaking doctors. This will help to improve access of Chinese doctors to the wider Chinese community.

2014 ACMA Exectutive Committee Nominations

Nominees for General Committee member:

- Paul T. Cheng
- Gee Hing Wong
- Kristine Ng
- Andrew To
- Michael Jen Jie Chu

New ACMA Logo

This fantastic new logo was designed by Ralston D'Souza in University of Auckland MbChB 3. Congratulations Ralston who has won a JBHiFi voucher. The new logo is planned to be implemented in the new ACMA website and for future ACMA proceedings.

INTERVIEW:
DR RICHARD YU

We interview the ACMA secretary
by Jai Min & Varun

Dr Yu is the current ACMA secretary. He was born in Tianjin, China and grew up in Auckland. He graduated from University of Auckland MBChB in 2010 and currently works as a General Practitioner in Auckland City. .

As a relatively recent graduate, how have you found the transition from medical school to the working world?

Exciting. Working as a doctor has been quite different from what i thought it'd be like when I was in medical school. There's a lot of subtleties about patient management that you can't really learn about until you're doing the job. And being the one caring for the patient myself has motivated me to go back and study more as well. So it's a constant cycle of combining practical experience with theory or if you like book knowledge in improving patient care.

What attracted you to specializing as a General Practitioner, and in Auckland?

Choosing to stay in Auckland was not really a difficult choice - my family and most of my social circles are here. As for specialising as a GP, it a combination of factors - my interest in many different aspects of medicine, the opportunity to get to know patients better and on a more personal level, the role in promotion of good lifestyle and health habits and preventative medicine, an opportunity to be my own boss and work more flexibly. The list can probably go on haha.

What do you regard as the most important issue the field of General Practice need to overcome?

The most important I feel for GPs these days is how to use their time effectively. There's so much that a GP is capable of doing for a patient for their health but the question is how to do all this in a limited timeframe. Patients often come in for acute problems but there may be screening issues and other underlying psychosocial issues that would benefit the patient if they are addressed. Perhaps we need to accept that sometimes we do need to spend a bit more time than the standard consultation time, and other times we might think about using our allied health professionals better, the nurses, the psychologists and counsellors, etc.

When did you join ACMA and what interested you in joining? (YACMA?) Could you tell us more about your role in ACMA?

I initially joined yacma as a second year student fresh at med school. If i remember correctly, back then it was the almost-free food that attracted me. And i have stayed on since and transitioned to ACMA when i started working. I love the idea of a group of Chinese (and other Asian) doctors who are passionate about Asian health doing something, both for our colleagues and for the community, to promote the health interests and needs of Asian people in Auckland (and by proxy the whole of NZ), which is ever increasing in numbers.

Currently as the secretary my main role is coordinating the executive meetings and recording minutes, make sure that everyone is up to date with what's happening at ACMA, collecting the mail we receive from our PO Box and also helping with organising events and sponsorship.

What would you like to see more of in ACMA/ YACMA?

I am really glad to see what's been happening to YACMA in the last few years - it really does feel vibrant and energetic with current and recent execu-

tive teams - well done! I guess I'd like to see both ACMA and YACMA offering more for its members in terms of education and benefits, I'd like to see us going more into the community and making a difference in some capacity, I'd love to see more Chinese and other doctors and students sign up because it is a great organisation and it's working for a worthy cause.

Any words of wisdom for medical students? I'd personally like to know your thoughts on electives e.g. did your elective tie into working as a GP?

Haha well my elective really had nothing to do with GP - at that stage i hadn't made the decision to go into general practice. I did mine in Beijing, near my home town and I have to say not many people go there (unlike Malaysia!). I do encourage people to go to countries where English may not be the lingua franca. It may be a bit more daunting but hey you get to learn a new language (always fun!) and chances are you'll see a very different health system from NZ and have a very unique experience.

Coming back to my advice for medical students, I think the main thing is not to fret too much about exams, except that you do need to pass them of course. I believe that the ultimate goal of doctors is to make a difference to the health of the public, and that can be achieved whether you get an A average at medical school or not. I try to remember that I learn what I learn, both at medical school and thereon, so that i can serve the patients better so it's what you put to use that matter. An exam is only one of many possible ways of assessing if you can be a good doctor or not - it doesn't validate or invalidate you.

What do you enjoy doing when your not at work?

I try to keep up with my hobbies. So my main hobby is music, especially playing piano. While i don't practice piano everyday at home any more, I do play regularly at church and play with friends in chamber group settings, and we sometimes do small performances. I also play viola.

I go to church every week and currently lead a cell group as well teach Chinese to a group of kids there.

Otherwise I also enjoy playing badminton, swimming, reading, watching movies, travelling... lots of things!

What rumour would you like to start about yourself?

It depends on what rumours are already circulating around! We can talk about this more ;)

Your favourite breakfast food?

Haha hate to say the McDonald's breakfast menu is pretty appetizing. But it's definitely a more congenial environment to have a nice breakfast or brunch at a local cafe - I love it.

Cat or dog?

Not at moment - still negotiating the terms with my girlfriend..

Restaurant Review:
Angus Steakhouse

By Jai Min Choi

Who doesn't love a good steak? Vegetarians. So I'd advise thinking twice before inviting them to Angus Steakhouse! For the more meat-inclined, Angus Steakhouse claims to have "the biggest and best steaks in town". Quite a bold claim. The best way to test that claim? You know it.

This place was certainly a step up price-wise from my usual student budget dinners, demanding a hefty $38 for one steak main, accompanied by unlimited access to the salad bar. #yolo? Let me tell you though, these really were the biggest steaks I have seen. There was literally every type of cut you could

> "...The T-bone steak was about the size of a person's face..."

possibly get on display, waiting to be cooked to your liking. While my friend and I waited for our T-bone steak and eye fillet to cook, respectively, we tucked into the salad bar. With bread and dips costing $9 and even more for the entrées we didn't have much choice but to sate our hunger with various salads and cold pastas. Nothing outstanding, as is often the case with buffet foods. After a bit of a wait we finally got our steaks delivered to our table. The T-bone steak was about the size of a person's face. The eye fillet was much smaller but I suppose that's to be expected for typically the most expensive cut. I can confidently say the eye fillet was one of the best steaks I've had in my short, financially challenged, student life. Hearty, juicy, and very satisfying. Definitely recommended for meat lovers.

If you've got some money kicking around in your bank account then Angus Steakhouse should definitely be visited at least once. But when the salad bar just on its own costs $16, those who are sworn off beef should stay far away!

Angus Steakhouse, 8 Fort Lane, CBD
Lunch (Mon-Fri) 12.00pm-2.30pm
Dinner (Mon-Sun) 5.00pm-11.00pm
Phone: 09-379 7815

Hepatopancreaticobiliary (HPB) Surgery: An Overview

Presented by Mr. Adam Bartlett (PhD FRACS)
ACMA CME 25.8..2013

Hepatopancreaticobiliary (HPB) Surgery

- Subspecialty of general surgery
- Recognized by the RACS
- Includes upper GI: “hollow organ” and “solid organ” as well as the liver, pancreas and biliary tree
- (Duodenum, portal vein, spleen)

Hepato-biliary Surgical Conditions

- Parenchymal
  - Malignancy
    - Primary (Hepatocellular carcinoma)
    - Secondary (Colorectal cancer metastasis)
- Biliary
  - Malignancy
    - Cholangiocarcinoma
  - Benign
    - Cholecysto- or hepato-lithiasis
    - Strictures
- Vascular
  - Portal hypertension

Primary Liver Cancer (Hepatocellular carcinoma)

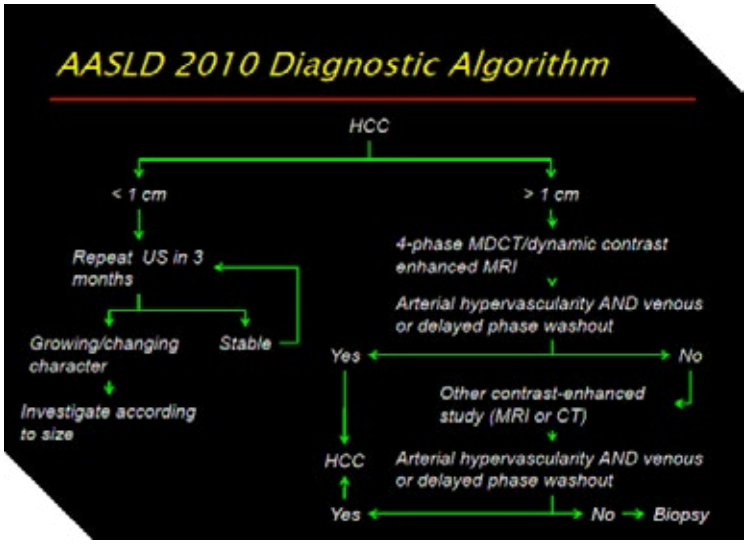
Management principals

- Liver Factors
  - Synthetic function
    - Can be assessed medically, clinically and histologically
      - » Child-Pugh Score (crude, subjective assessment)
      - » Model for End-stage Liver Disease (MELD) score
      - » Indocyanine Green (ICG)
      - » Liver biopsy for fibrosis, steatosis and inflammatory infiltrate
  - Cirrhosis
  - Portal hypertension
    - Can be assessed indirectly via:
      - » Splenic length (>12cm)
      - » Portal vein diameter (>15mm)
      - » Platelet count (<100)
      - » UGI endoscopy (varices, PHG)
      - » Hepatic vein pressure gradient (HVPG)
    - Or directly via:
      - » Direct portal puncture
      - » Splenic pulp pressure
- Tumour factors
  - Size and numbers
  - Location

Diagnosis of hepatocellular carcinoma (HCC)

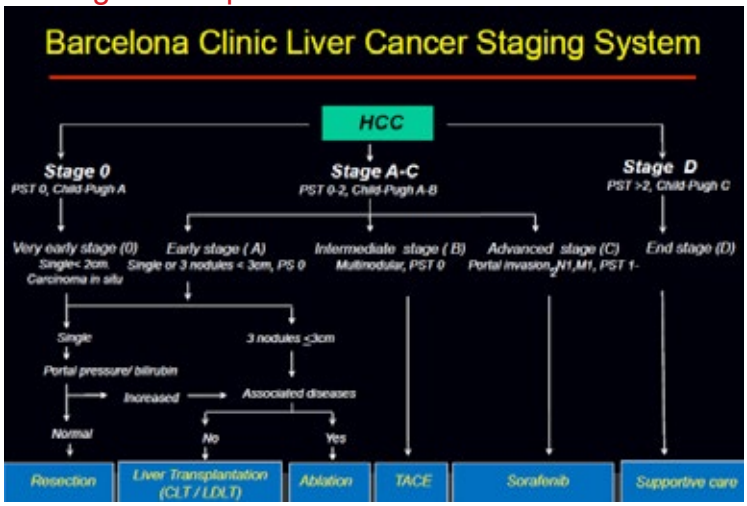
- Investigations
  - Imaging
    - Ultrasound (for lesions <1cm in size)
    - 4 phase multidetector CT (for lesions >1cm in size)
  - Serological markers
    - Alpha-feto protein
      - » >400ng/mL = highly suggestive of HCC
      - » Note: The sensitivity of the marker depends on the threshold used. Also, 20-30% of HCC do not produce AFP
  - Histology
    - Biopsy
      - » For lesions >1cm with atypical enhancement
      - » Associated biopsy of adjacent liver
      - » Allows for histological diagnosis and grading
      - » Potential for needle track implantation of

tumor
    - Reported incidence of 1-5% with higher incidence associated with larger needles
    - Causes significant risk of tumour becoming unresectable or non-transplanted
- The diagnosis of HCC is dependent upon the size of the lesion. The American Association for the Study of Liver Disease (AASLD) provides the following algorithm:



Note: Every nodule that appears in a cirrhotic liver is a HCC until proven otherwise!

Management options



    - Limitations of hepatic resection for HCC
        - 90% of HCC are associated with cirrhosis
        - Multi-focal tumours are common (20-60% of small HCC are multi-focal)
        - 50% tumour recurrence at 2-years

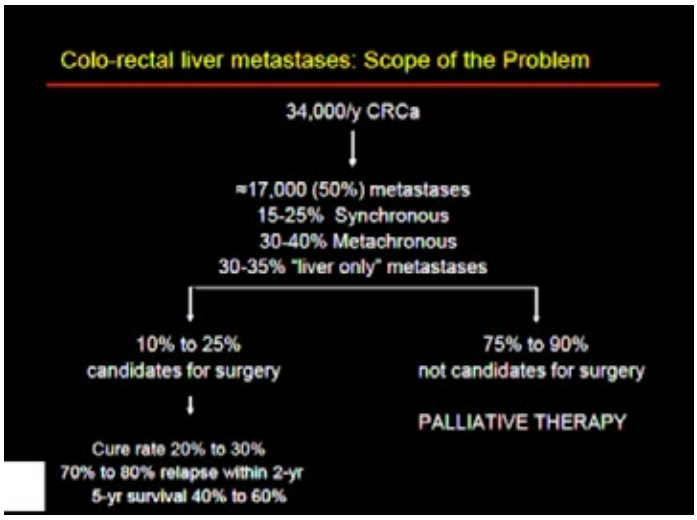
- Liver Transplantation
    - Transplantation criteria – the Milan Criteria selects patients with:
        - Single tumours ≤ 5 cm.
        - Up to 3 lesions each ≤ 3 cm.
        - Absence of macro-vascular invasion

      Note: The size of the tumour shows positive correlation to the extent of vascular invasion and thus may serve as a surrogate marker
    - A study looking at the results of transplantation based on the Milan Criteria in 48 patients with cirrhosis and HCC showed a 4 year survival rate of 75% and recurrence free rate of 83%
    - Alternatively, the UCSF criteria may be used which extends the selection criteria to patients with:
        - Single lesions ≤ 6.5cm
        - Up to 3 lesions with the largest measuring ≤ 4.5cm and a total tumour diameter ≤ 8cm

- Local ablation
    - Percutaneous Radiofrequency Ablation (RFA)
        - A study by Guglielmi et al. (2008) found surgical resection superior to RFA in improving disease and overall survival, with no significant differences in subgroup of patients, be it HCC <3cm, multiple lesions or Child-Pugh class B

- Trans-arterial chemo-embolisation (TACE)
    - Efficacy of TACE
        - Palliative setting

        - » Prolongs survival (evidence based)
    - Resection
        - » Useful for down-staging unresectable tumors (absence of proof….but no proof of absence…)
    - Transplantation
        - » Reduction in wait-list dropouts
        - » Surrogate marker of biological behavior



- Systemic chemotherapy
    - While there is yet an effective systemic therapy for patients with advanced HCC, there is now suggestion that sorafenib – an oral multikinase inhibitor of VEGF-R, PDGF-R and Raf – may provide some benefit in patients with HCC.
        - A randomized, placebo-controlled trial found that sorafenib prolonged overall survival and time to radiologic progression compared to placebo but did not produce any significant differences with regards to symptomatic progression.

Prognosis

- The survival rate of patients with HCC has been improving in New Zealand, with a median survival time of 555 days (n =375).
- It is crucial that patients screened positive for Hepatitis B surface antigens undergo the THF follow-up programme as well as a 6 monthly surveillance programme for chronic hepatitis B and HCC.

Metastatic Colorectal Cancer

Colorectal liver metastases

- Current paradigm:
    - 30-40% resectable
    - 15% ablation
    - 30-55% non-resectable

Management strategies

- Liver resection
    - <u>Resection is currently still the gold standard for treatment of colorectal liver metastases</u>
    - Survival has improved over the years due to:
        - Lower operative mortality
        - Improved patient selection
            - » CT, MRI, PET, PET/CT
        - Improved surgical techniques
            - » IOUS, PVE, RFA
        - More frequent and better perioperative chemotherapy
            - » Irinotecan, oxaliplatin, biologics
        - Increased rates of repeat hepatectomy following recurrence
    - Traditional selection criteria v.s. contemporary view

Traditional criteria	Contemporary view
≤3 metastases	Poorer prognosis with >3 lesions, but may still be potentially curable
Unilobar disease	Bi-lobar disease not a contraindication
Metastases <5 cm	Poorer prognosis with lesions >5 cm but may still be potentially curable
Metachronous lesions	Synchronous lesions not a contraindication
Dukes A or B primary	Dukes C have worse prognosis but may still be potentially curable
>1 cm Resection margin	Microscopically clear margin acceptable
No extra-hepatic disease	Exceptions - resectable pulmonary metastases, hepatic recurrence, direct diaphragmatic invasion
Patients <65 years	Co-morbidity more important
Portal nodes negative	Probably valid

- Additions and changes to the traditional paradigm on resectability
  - Radiation oncology treatment is now considered feasible with either resection ± ablation
  - Vascular inflow, outflow and biliary drainage can be preserved
  - Importance of preserving sufficient future liver remnant (>20% of TLV)
  - Extra-hepatic tumours are still contraindicative, except for direct invasions of the diaphragm, local recurrence and resectable pulmonary metastases

- Management of initially resectable disease
  - Simultaneous bowel and liver resection
    - Advantages:
      - » Shorter hospital stay
      - » Reduced medical costs
      - » Avoids repetitive immunosuppression of major surgery
      - » Avoidance of adhesions
      - » Psychologically more appealing to hear that “all cancer is removed”
    - Disadvantages:
      - » Significantly higher recurrence rate and lower 3-year survival rate compared to delayed hepatectomy
  - Delayed hepatectomy/ liver resection following hemicolectomy of primary colorectal tumour
    - Has been the traditional approach to liver resection
    - Offers better long term outcomes compared to simultaneous resection
  - Neoadjuvant/ adjuvant therapy
    - Regimens consisting of oxaliplatin and irinotecan can be given pre-operatively to improve the resectability of the tumour or post-operatively to improve disease-free survival
    - A study (Adam R et al. 2004) found that tumour progression prior to surgical resection is associated with a poorer prognosis. Conversely, patients who showed objective tumour response or tumour stabilization had a significantly higher overall survival.
  - Resection of liver before primary colorectal tumour
- Strategies to improve resectability
  - Reduce the size of index lesion
    - Chemotherapy
    - Ablation
    - Liver directed therapy
  - Increase the size of future liver remnant
    - Portal vein embolisation
    - 2-stage hepatectomy

- Chemotherapy (systemic, HA-infusion)
  - Studies looking at the role of chemotherapy in non-resectable disease have mainly been retrospective in nature, with limited numbers of prospective phase II trials
  - An optimal agent/ combination has yet to be defined so far but studies have predominantly focused on the effects of oxaliplatin- and irinotecan-based therapies
    - Irinotecan loaded Microspheres (DEBIRI)
      - » Infusion via catheter in the hepatic artery (minimally invasive therapy)
      - » Proposed advantages of using polyvinyl alcohol microspheres suspended within a contrast media
        - Single administration
        - Reduced systemic toxicity
        - Targeted, protecting “normal” liver
        - Combine with metal tracer

        - Cheaper (?)
        - Faster action, so shorter delay from treatment to surgery
    - Complications due to excessive chemotherapy
        - Steatosis and steatohepatitis
            - » Associated with prolonged use of irinotecan-based therapies
            - » Causes increased post-operative liver failure and death within 90 days
        - Sinusoidal Obstruction Syndrome (SOS)
            - » Seen in patients treated with oxaliplatin
            - » Causes increased peri-operative bleeding
        - Disappearing tumours

    Note: It is crucial to administer just enough chemotherapy to treat the tumour without significantly compromising liver function.

- Tissue ablation
    - Radiofrequency ablation (RFA)
        - Post procedure complication rate of 0-33%
        - Shorter survival than surgical resection (40% 5-year survival c.f. 53% with resection)
        - Local recurrence rate 4-55%
        - For lesions <3 cm, RFA and resection probably equivalent (Mulier S et al. 2008)
    - Microwave ablation (MWA)
        - Ablation zones are larger than those for RFA
        - Less deflection caused by local vessels
        - No pathological difference in degree of necrosis
        - (Lower recurrence rates)
    - Percutaneous ethanol injection (PEI)
    - Cryotherapy
    - Microwave coagulation therapy (MCT)
    - Laser induced thermotherapy (LITT)
    - Electrolysis
- Trans-arterial chemo-embolisation (TACE)
- Best supportive care
- (liver transplantation)

Summary

- Too few patients with potentially curable liver cancer are referred
- The definition of resectability continues to change, with a shift in paradigm towards increasing resectability
- Chemotherapy improves long-term outcome in HCC and CRCa
- Liver targeted therapies (DEBIRI, SIRT) appear to offer survival benefit, but need to better define treatment group
- Minimally invasive tissue ablation complements resection
- Individualized, multidisciplinary approach required to optimize outcomes

Rheumatology Update

Dr Kristine (Pek Ling) Ng, Rhematologist

CME 30/06/2013

Update on rheumatoid arthritis (RA):

- 2013 treatment strategy:
  - Early diagnosis
  - Early use of disease modifying anti-rheumatic drugs (DMARDs) e.g. methotrexate
  - Identify a treatment target e.g. remission
  - Monitor and adjust disease modifying therapy according to target
  - Add biologic DMARD if target is not achieved
  - Continue to monitor and adjust therapy as long as the target is not achieved

- Early referral recommendations for RA
  - Rapid referral to rheumatologist is recommended in the event of clinical suspicion of RA which may be supported by the presence of the following:
    - 3 or more swollen joints
    - MTP/MCP joint involvement
    - Positive squeeze test
    - Morning stiffness lasting 30 or more minutes
- When to refer to the rheumatologist?
  - Patient with atypical features or features that increase the likelihood of non-polymyalgia rheumatica (PMR) diagnosis
    - Younger patient <60 years old
    - Chronic onset
    - Lack of shoulder involvement
    - Lack of inflammatory stiffness
  - 'Red flag' features
    - Prominent systemic features e.g. weight loss, night pain, neurological signs
    - Peripheral arthritis or other features of connective tissue/muscle disease
    - Normal or very high ESR/ CRP
  - Treatment dilemma such as incomplete or non-responders to corticosteroids
- Which findings are important to predict development of undifferentiated to rheumatoid arthritis?
  - Swollen MCP and PIP joints
  - Swollen wrists
  - Hand tenderness
  - Acute phase
  - Serology (rheumatoid factor and anti-CCP)

Table 3 The 2010 American College of Rheumatology/European League Against Rheumatism classification criteria for RA

	Score
Target population (Who should be tested?): Patients who	
1) have at least 1 joint with definite clinical synovitis (swelling)*	
2) with the synovitis not better explained by another disease†	
Classification criteria for RA (score-based algorithm: add score of categories A-D; a score of ≥6/10 is needed for classification of a patient as having definite RA)‡	
A. Joint involvement§	
1 large joint¶	0
2–10 large joints	1
1–3 small joints (with or without involvement of large joints)**	2
4–10 small joints (with or without involvement of large joints)	3
>10 joints (at least 1 small joint)††	5
B. Serology (at least 1 test result is needed for classification)‡‡	
Negative RF *and* negative ACPA	0
Low-positive RF *or* low-positive ACPA	2
High-positive RF *or* high-positive ACPA	3
C. Acute-phase reactants (at least 1 test result is needed for classification)§§	
Normal CRP *and* normal ESR 0	0
Abnormal CRP *or* normal ESR 1	1
D. Duration of symptoms¶¶	
<6 weeks	0
≥6 weeks	1

A score of 6+ confirms RA in the 2010 American standard

- Biologic therapies funded in NZ for RA
  - Adalimumab (2006)
  - Etanercept (2009)
  - Rituximab (July 2013)
  - Infliximab (July 2013)
- Anti-TNF in RA efficacy

- Reduces radiographic progression and induces remission
- Magnitude of response greater in earlier disease
- More effective in combination with non-biologic DMARDs (nbDMARDs)
- Improve economic productivity, quality of life, reintroduction to employment
- Switching to another anti-TNF can be beneficial

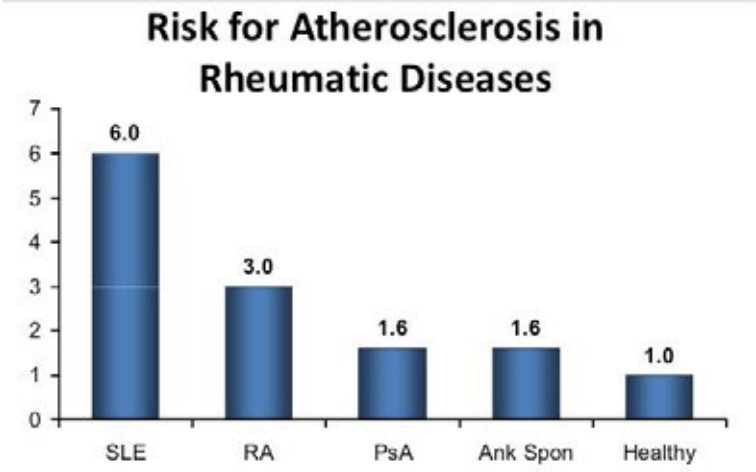
- Potential hazards of modern therapy – infections:
  - Risk of hospitalised infection in pre-biologic RA treatment
    - Rate ratio 1.9 (95% CI 1.7-2.1)
  - Risk of serious infection with anti-TNF
    - Relative risk range 1.1 to 2.2
    - Risk highest in first year
    - Increased with co-morbidities
- Rituximab
  - Repeated courses associated with decrease in immunoglobulin levels
  - Low pre-treatment IgG (<6mg/L) significantly associated with serious infection
  - Incidence of serious infections not increased out to 4 courses in long term clinical trial extensions
  - Data from French registry supports chronic heart or lung disease as important risk factors
- Tuberculosis and anti-TNF therapy
  - Risk increased (RR 3-4) particularly with monoclonal antibodies (e,g. infliximab, adalimumab)
  - No signal of increased TB with rituximab from lymphoma literature
- Herpes zoster and anti-TNF therapy
  - Mixed results from studies
  - Inactive vaccines are safe and generally effective
  - Live vaccines are contraindicated in immune-mediated inflammatory disease patients with immunosuppressives including biologics
  - Live vaccines may be considered in mildly immunosuppressed patients
- Lymphoma and anti-TNF therapy
  - RA itself is associated with lymphoma (RR 2-3)
  - Observational data suggest that anti-TNF is not associated with increased risk of lymphoma (5 years follow up)
- Skin and anti-TNF therapy
  - Non-melanoma skin cancers
    - Increased risk (RR 1.6-2) in patients on anti-TNF and nbDMARDs compared to general population
  - Melanoma
    - Anti-TNF therapy significantly increased melanoma risk compared to patients on nbDMARD
    - Absolute risk increase 20/100 000
- Peri-operative management of biologic DMARDs
  - Anti-TNFs: National Society Guidelines vary, reasonable to withhold 2-4 weeks before surgery and restart 10-14 days later
  - Rituximab: lower risk of bacterial infection compared to anti-TNF

Update on systemic lupus erythematosus (SLE)

- Features commonly found in early lupus:
  - Fatigue, fever, lymphadenopathy, anorexia, nausea
  - These non-specific symptoms can easily be confused with a wide variety of conditions (lymphoma, infection)
  - Often patients have had a host of GIT tests for persistent nausea
  - SLE can occur in males
  - Always look at the whole picture and any clue present
- Prevalence of SLE similar in Asians compared to Caucasians
- More prevalent among Asian migrants
- More severe manifestations compared to Caucasians
- SLE outcomes from a University College London cohort
  - 600 patients under long term review (1978-2012)
  - Mortality: n = 63 (15%)

- Main causes of death:
  - Infection
  - Vascular
  - Cancer
  - Active disease including renal
- Hydroxychloroquine
  - Prevent flares
  - Reduce serum cholesterol
  - Delay onset of damage
  - Improve long term survival
- New therapies
  - B cell targeted therapy is most promising
    - Rituximab (anti-CD20)
    - Belimumab (anti-BLyS)
    - Epratuzumab (anti-CD22)
  - 7 year study at UCL among 50 patients saw 42% remission

Cardiovascular complications of rheumatic disease



Han et al. *J Rheumatol*. 2006 (Epub ahead of print); Manzi et al. *Am J Epidemiol*. 1997;145:408-415; Ward. *Arthritis Care Res*. 1999;12:247-255; Roman et al. *N Engl J Med*. 2003;349:2399-2406; Roman et al. *Ann Intern Med*. 2006;144:438; Wolfe et al. *Arthritis Rheum*. 1994;37:481-494; del Rincon et al. *Arthritis Rheum*. 2001;44:2737-2745.

- What should the clinical do to reduce risk for atherosclerosis in RA and SLE?
  - Control disease activity
  - When disease is at its best controlled, measure lipids
    - Statin for LDL ≥ 3.4 mmol/L if RA/SLE is only risk factor
    - Statin for LDL ≥ 2.6 mmol/L or total cholesterol/HDL > 3.5 mmol/L if RA/SLE plus another risk factor
    - Statin if you think it is a good idea
  - Control:
    - Hypertension
    - Diabetes
    - Proteinuria
    - Increased BMI
  - Minimise NSAIDs and glucocorticoids

What to do with a positive anti-nuclear antibody (ANA) test?

- Are there features of a connective tissue disease?
  - Some evidence of inflammation
  - Arthritis
  - Rash/photosensitivity/alopecia/sclerodactyly/Raynaud's
  - Cytopenia
  - Serositis
  - Nephritis
- Does the ANA have some specificity?
  - Positive DsDNA with high titre ANA
  - Positive ENA
  - Very high titre ANA
- If NO to the above:
  - Check MSU, BP, renal function
- If YES to the above or unsure:
  - Ask for advice/refer

Update on gout:

- Aim for serum urate < 0.36 mmol/L
- Treat co-morbid conditions
- Rx of asymptomatic hyperuricaemia not recommended
- Acute gout:
  - Low dose colchicine (total daily dose 1.8mg) just as effective as high dose (total daily dose 4.8mg)
- Lifestyle modification
  - Cut back on sugary fizzy drinks, sucrose, fructose, as these inhibit uric acid excretion
- Urate lowering treatments:
  - Allopurinol:
    - Starting dose calculated at 1.5mg per unit of GFR: safe and effective
    - "Start low, go slow"
    - Higher dose (> 600mg daily) may be required to achieve target uric acid level
    - DO NOT STOP ALLOPURINOL FOR ACUTE ATTACKS

    - Benzbromarone
        - For patients with gout despite allopurinol treatment
        - Uricosuric agent, available on Special Authority (1 April 2013)
        - Recommended to discuss with rheumatologist first before use
        - Inhibitor of cytochrome P450, careful with warfarin
    - Febuxostat
        - Novel xanthine oxidase inhibitor, just registered in NZControl:
        - Hypertension
        - Diabetes
        - Proteinuria
        - Increased BMI
    - Minimise NSAIDs and glucocorti-coids

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Newborn Hearing Screening: Pass or Fail?

Ms. Michelle Wong, ORL/ENT Surgeon

CME 30/06/2013

In the media:

- Hearing test scandal:Babies recalled to hospital 19/12/2012
- Eight fired over baby hearing-test issues 20/12/2012

Around the world

- 1990 – technology for early screening introduced
- USA – NCHAM 1995, 97% all infants in USA screened in 2009
    - Screening >3.5 million babies per year
- UK – NHSP rolled out screening between 2002-2006
    - Screening 600,000/yr by March 2005
- Australia – Trial WA 2000, by 2005 screening in all states
    - Screening >100,000 babies per year

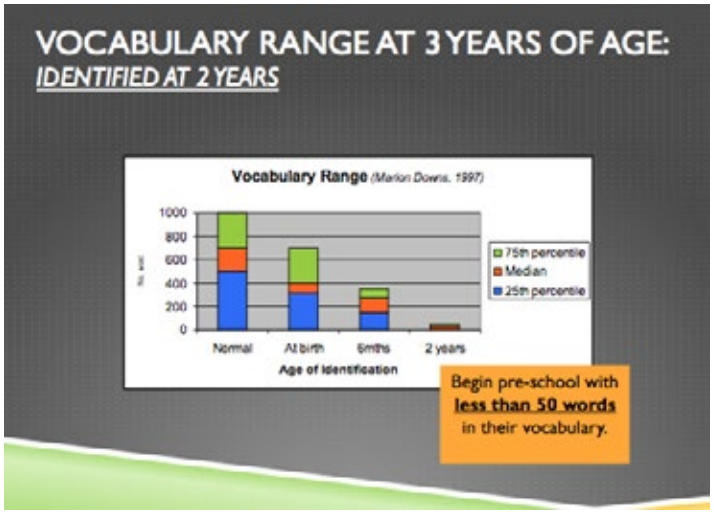
Newborn metabolic screening: Incidence per 100,000 births in Australia

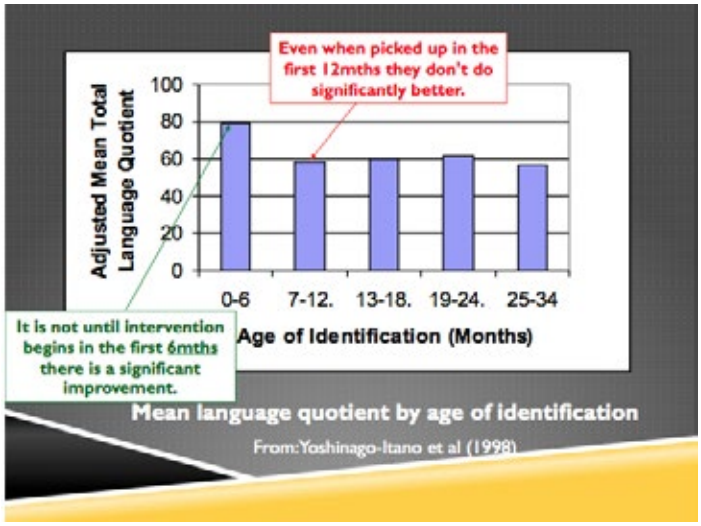
- Hearing loss 500/yr
- Cystic fibrosis 125/yr
- Hypothyroidism 62/yr
- Hemoglobinopathy 32/yr

In NZ:

- 135-170/yr (3/1000 births) with PCHI
- Identification (2003):
    - Avg age 3-4yo
    - Maori 80% by 80months age
    - Others 80% by 60 months age

* Critical period = first 60 months of life



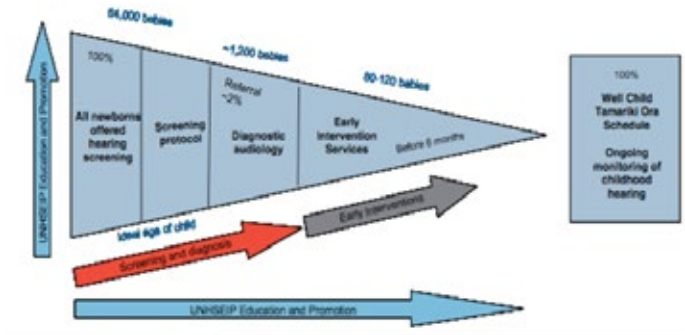


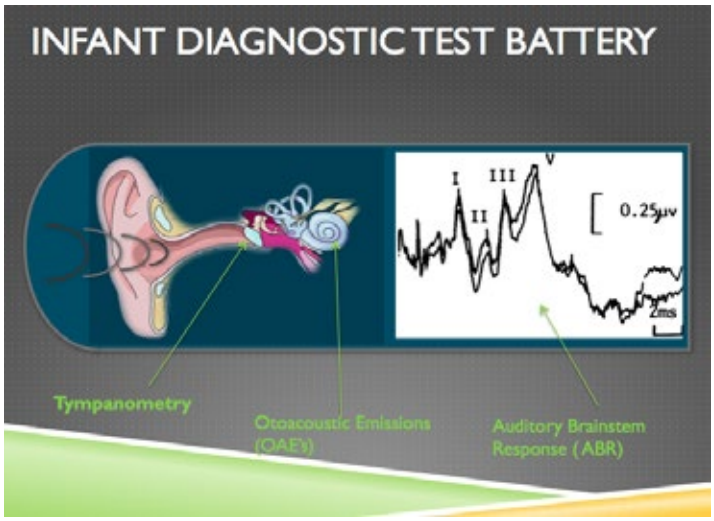
HIEDI

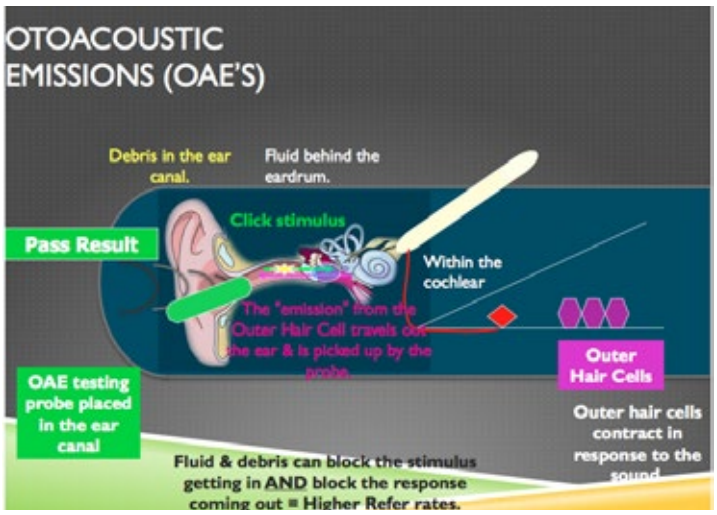
- 2001 Hearing Impairment, Early Detection and Intervention formed in NZ
- 2006 government announces national funding for Newborn Screening program
- NZ 1 July 2007 rolled out over 3 years (20 DHBs) (Self governance)

UNHSEIP- AIMS:

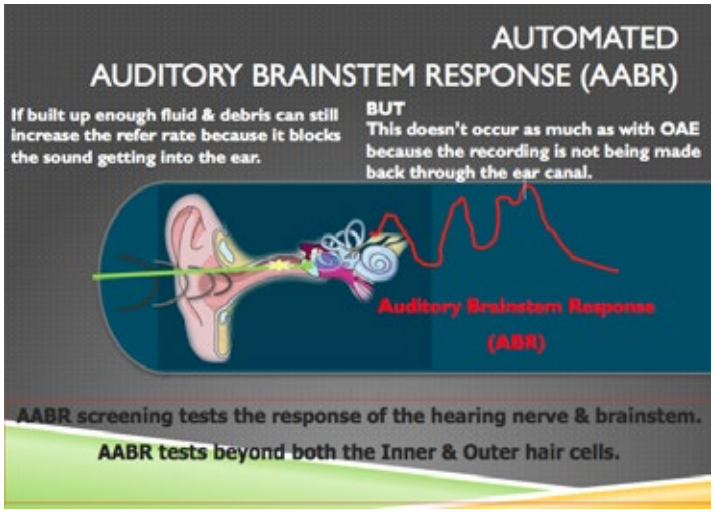
1. Babies to be screened by 1 month age
2. Audiology assessment completed by 3 months age
3. Initiation of appropriate medical and audiological services and Early Intervention education services, by 6 months of age

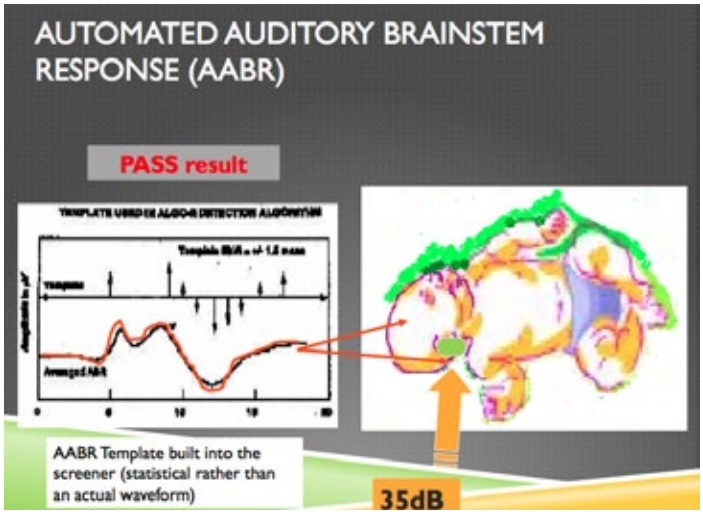


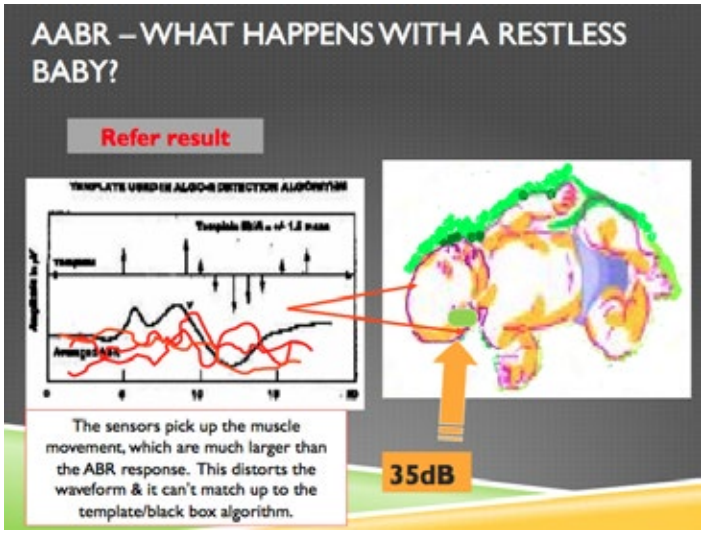




The most prominent emission is 2F1-F2.
If F1=1000Hz and F2=1200Hz, then 2F1-F2=2(1000)-1200=800Hz



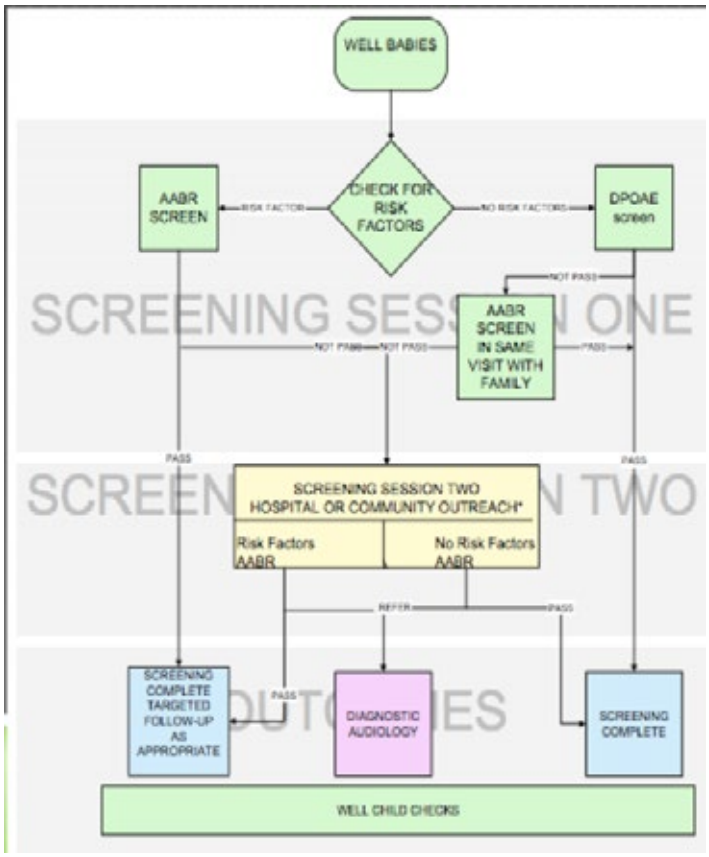




Exclusion criteria: <34weeks or greater than 6 months

- <34wks baby has less mature brain and more delayed response which the template is <u>not</u> designed for
- >6mo old has more mature brain and faster response which template is <u>not</u> designed for

NZ testing protocol

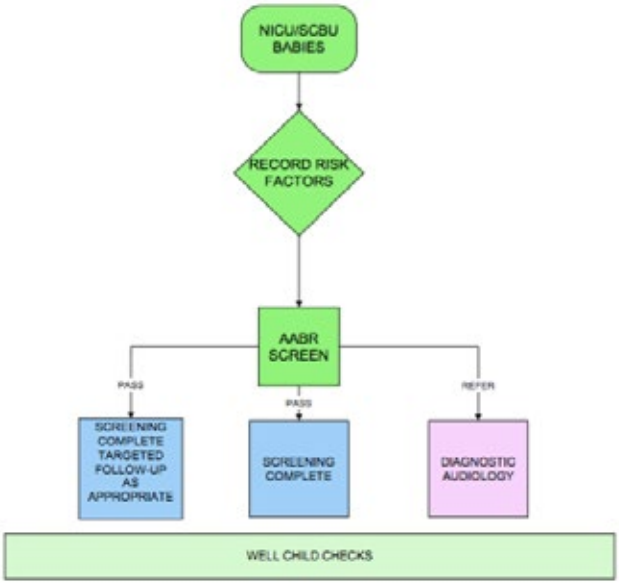


At risk infants

- Congenital
  - Fam Hx
  - Craniofacial anomalies including cleft palate
  - TORCHS
  - Syndromes
  - Neurodegenerative

- Postnatal Factors
  - >48hrs in NICU
  - Prematurity
  - Jaundice
  - Head injury
  - Meningitis
  - Ototoxic medications

Screening for at risk infants



Targetted followup of at risk babies:

- Progressive hearing loss- majority picked up at 18 months
- Replaces the follow-up diagnostic test at 24-30 months age.
- Behavioural assessment, immitance audiometry and DPOAEs

SWISH STATISTICS (DEC 2002 – DEC 2004 -24 MONTHS INTO THE PROGRAMME)

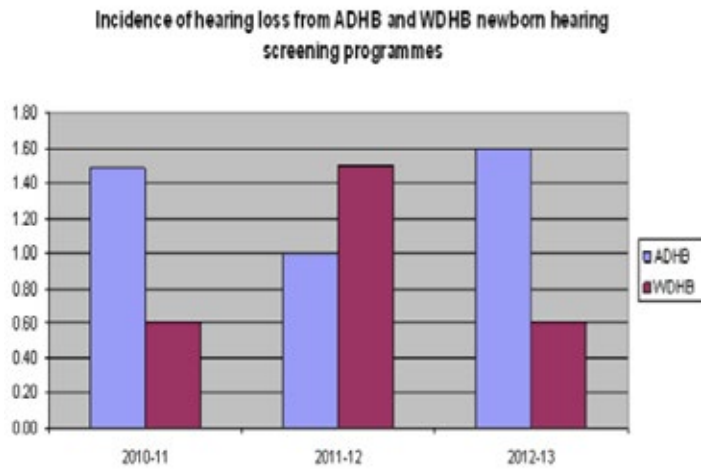
Screening: 164,173 babies screened, 96% coverage from May 03-Dec 04, 7% receive refer on 1st screen, 0.2% receive bilateral refer on 2nd screen

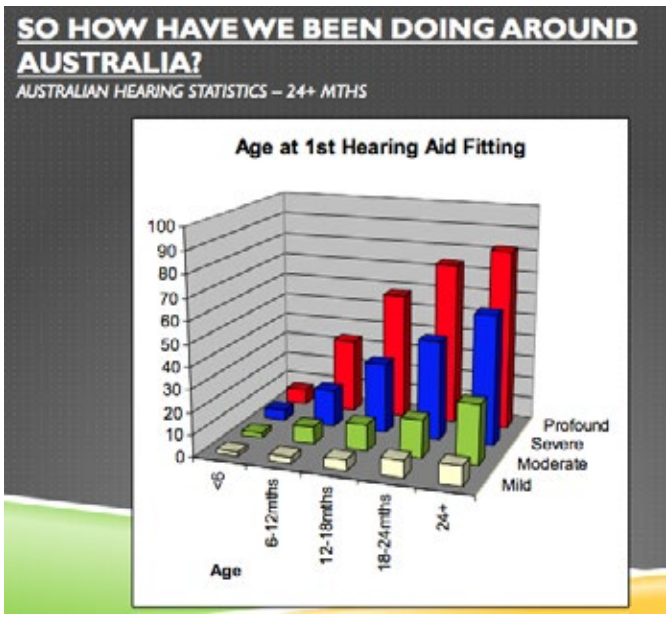
Diagnostic Audiology:

- 302 babies referred for diagnostic testing
- 97% babies attended diagnostic
- 135 of the newborns were confirmed with significant bilateral hearing loss
- Incidence is 0.8/1000 babies
- 38% had no risk factors for HL
- Male 71% Female 29%

OUR CURRENT DATA (NZ)

- ADHB close to 100% cover rate
- WDHB 90%





SWISH findings:
Age at diagnosis – average age of diagnosis decreased from 18 mo to 4 wks of age
Age at 1st hearing aid fitting – average age of hearing aid fitting has decreased from 2 yrs to around 2 months of age
Comparison of age at fitting 1997-2003 – since implementation of SWISH the number of babies being fitted with hearing aids <6mo has increased significantly

Factors contributing to hearing test scandal

- All experienced screeners 2009-2010
- ?Salary
- Not feeling valued
- Limited time frame with early discharges
- Stressful
- Lack national audit and national database

Recommendations

- A national centralized database
- Changing the protocol to AABR only
- Investment in our screeners
- Value our screeners

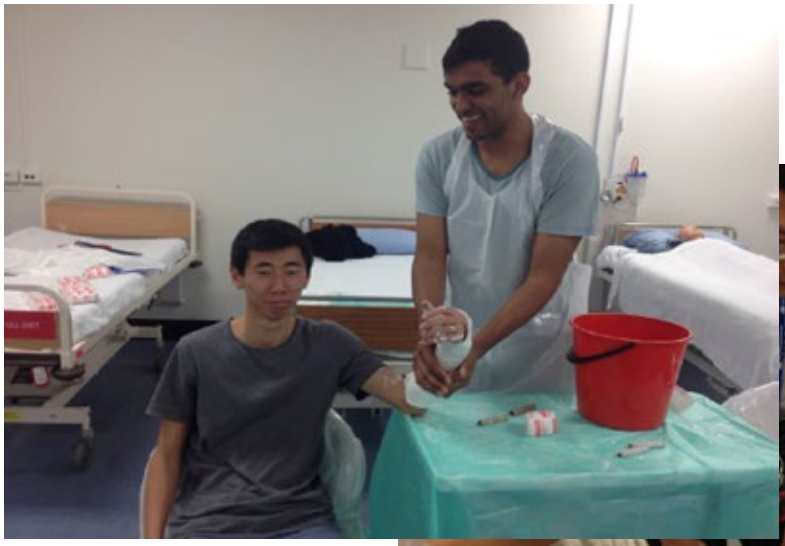
Why we still need to be vigilant

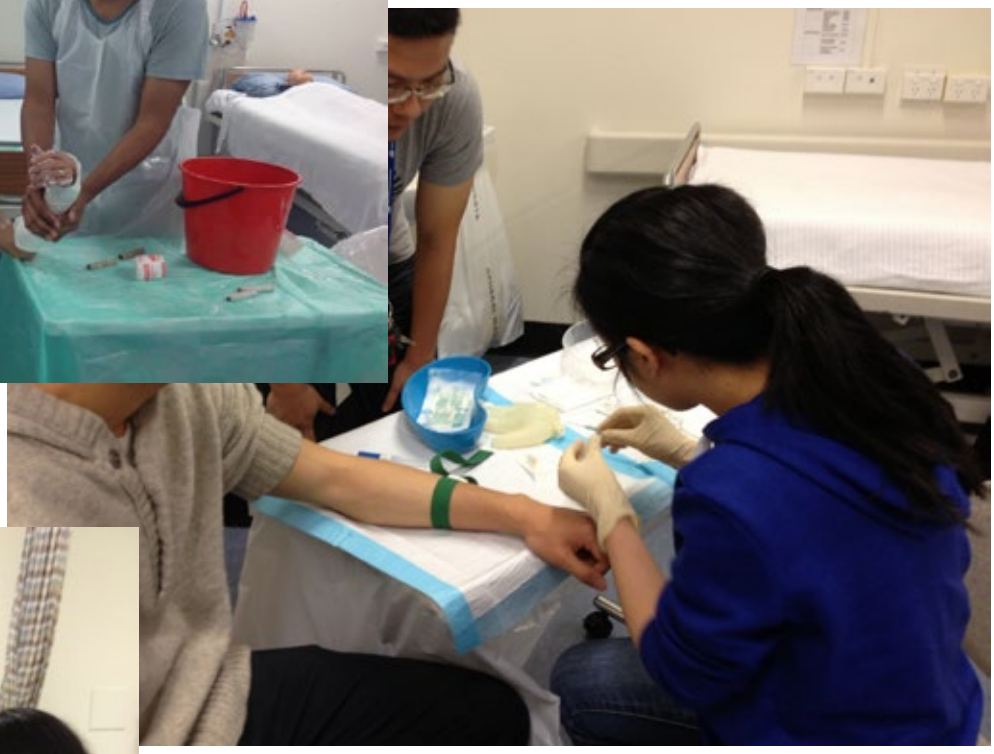
- Newborn screening around the world:
- Pick up rate 1/1000 births, yet PCHI 3/1000
- Late onset, progressive loss?
- Mild hearing loss
- Temporary loss from CHL

GP'S ROLE

- No screening test is perfect
- Screen only
- Human factors
- Place value in our screeners
- NZ's screening program is only 3 years old
- Will miss progressive hearing loss, CHL etc.
- Constant vigilance

YCMA





ACMA 屋崙中華醫學會

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